



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,355	08/02/2000	Tetsuya Nishi	1046.1028D2/DSG	9683
21171	7590	10/07/2003	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			SHAFER, RICKY D	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/631,355

Applicant(s)

NISHI ET AL.

Examiner

Ricky D. Shafer

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-31 is/are allowed.
- 6) ☒ Claim(s) 32-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2872

1. Applicant's arguments filed 10 July 2003 have been fully considered but they are not persuasive.

Applicant argues that each of the references to Healey et al ('140), Yamamoto et al ('944) and Dejule et al ('445) fail to teach control over only one switching element.

The examiner disagrees is of the opinion that the use of the language "switching light from...optical switches", as recited in the claims, in which applicant would appear to be referring too, do not distinguish over the above references for the reason(s) clearly set forth in Paper No. 16. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re van Geuns, 988 F.2d 1181, 26 USPO 2d 1057 (Fed. Cir. 1993). Moreover, the use of the transitional phrase "comprising" is open-ended and does not exclude additional, unrecited elements or method steps. See Moleculon Research Corp. v. CBS, Inc., 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); In re Baxter, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); Ex parte Davis, 80 USPQ 448, 450 (Bd. App. 1948).

Accordingly, the rejections set forth below are maintained.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United

Art Unit: 2872

States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 32-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Healey et al ('140).

Healey et al discloses an optical space switch (2) comprising a plurality of polarization control optical switches (S1, S2, S3), each having a plurality of inputs (20) and a plurality of outputs (0) connected together as a eight way N X N space switch, wherein each of the polarization control switches comprising a polarization controller (C1, C2, C3) and a plurality switching elements/means [(R1, R2, R3) and (D1, D2, D3) or (B1, B2, B3)] for selectively outputting the polarization changed light to a respective output of the respective polarization control optical switch, note figures 1-5 and the associated description thereof, wherein switching light from a respective polarization control optical switch in a first column of the matrix to a respective output of a respective polarization control optical switch in the last column of the matrix requires controlling only one of the plurality of switching elements/means (R1, R2, R3) in the matrix. (i.e the eight way N X N space switch has 8 to the eighth possible settings, which would include activating only one of the 8 to the eighth settings to obtain an output.)

4. Claims 32-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al ('944).

Art Unit: 2872

Yamamoto et al discloses an optical space switch comprising a plurality of polarization control optical switches (A, B, C), each having a plurality of inputs (I) and a plurality of outputs (O) connected together as a $N \times N$ matrix, wherein $N=1$, wherein each of the polarization control switches comprising a polarization controller (not shown) and a plurality of switching elements/means' [(2A) and (3, 6, 7, 21A, 21B, 21C, 22)] for selectively outputting the polarization changed light to a respective output of the respective polarization control optical switch, note figures 4A to 6B, 9A to 11B and 17A to 17B and the associated description thereof, wherein switching light from a respective polarization control optical switch in a first column of the matrix to a respective output of a respective polarization control optical switch in the last column of the matrix requires controlling only one of the switching elements/means (2A) in the matrix. (i.e. see Fig. 17B, wherein the dashed line (---) represents a reflected (off) state of a switch and the solid line represents a transmitted (on) state of a switch. Thus, input node 1 to output node 7 includes the switch (2A) of C to be off, the switch (2A) of B to be off and the switch (2A) of C to be on to obtain an output.)

5. Claims 32-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Dejule et al ('445).

Dejule et al discloses an optical space switch comprising a plurality of polarization control optical switches (S1,1, S1,2, S2,1 and S2,2), each having a plurality of inputs (K1-K12) and a plurality of outputs (L1-L8) connected together as a $N \times N$ matrix, wherein optical switches (S1, 2 and S2,2) serve as the last column, wherein each of the polarization control switches comprising

Art Unit: 2872

a polarization controller (not shown) and a switching elements/means [(F1,1, F1,2, F2,1 and F2,2) and (B1,1, B1,2, B2,1 and B2,2)] for selectively outputting the polarization changed light to a respective output of the respective polarization control optical switch, note figures 1-3 and the associated description thereof, wherein switching light from a respective polarization control optical switch in a first column of the matrix to a respective output of a respective polarization control optical switch in the last column of the matrix requires controlling only one of the switching elements/means (F1, 1, F1,2, F2,1 and F2,2) in the matrix. (i.e. see Fig. 2, wherein no voltage (off state) rotates the polarization of the switch and having voltage (on state) maintains the polarization of the switch. Thus, to include a selected polarization output at D2,2, the switch (F1,1) of S1,1 is on, the switch (F1,2) of S1,2 is off).

6. Claims 23-31 are allowed.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

Serial Number: 09/631,355

Page 6

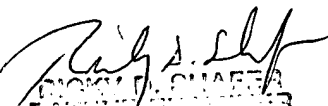
Art Unit: 2872

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication should be directed to R. D. Shafer at telephone number (703) 308-4813.

RDS

October 1, 2003


RICHARD D. SHAFER
PATENT ATTORNEY
ART UNIT 2872